



Budget Paper A

THE
ECONOMY

THE ECONOMY

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CANADIAN ECONOMY

The Canadian economy grew 3.4% in real terms in 2002, up from the 1.5% growth in 2001. Canada's real Gross Domestic Product (GDP) growth was the strongest among the G-7 countries last year, and well ahead of that of the United States (see Chart 1). Nominal GDP growth also increased from 2.6% in 2001 to 4.6% in 2002.

Last year's international economic environment reflected weak demand conditions brought about by economic and geopolitical uncertainty. The United States, in particular, posted only moderate growth after 2001's economic recession. Continuing uncertainty in regard to ongoing international conflicts, energy price volatility and international equity markets cloud the medium-term economic outlook.

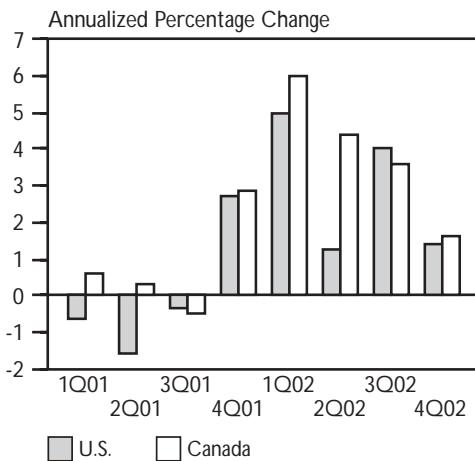
In Canada, strong consumer demand in 2002, boosted by strong job growth, low interest rates and increasing housing values, offset declining business investment and weak exports.

Real personal expenditure rose 4.9% in 2002. Spurred by historically low interest rates and manufacturers' incentives, consumer spending on motor vehicles advanced 7.1%, helping to boost overall consumer durable-goods spending by 6.7%.

Low interest rates promoted a banner year in Canada's housing sector. Last year's 15.9% growth in housing investment was the strongest increase since 1987. The total number of housing starts jumped 26.0%, with single-family dwellings up 30.6%, and multiple units up 19.4%. Canada posted over 205,000 housing unit starts last year.

Unlike Canada's consumers, businesses were cautious spenders in 2002. Despite a 6.2% recovery in corporate profits before taxes, business investment in plant and equipment slipped 3.9%, the second consecutive annual decline. Business investment in

Chart 1
Canada and U.S.
Real GDP Growth

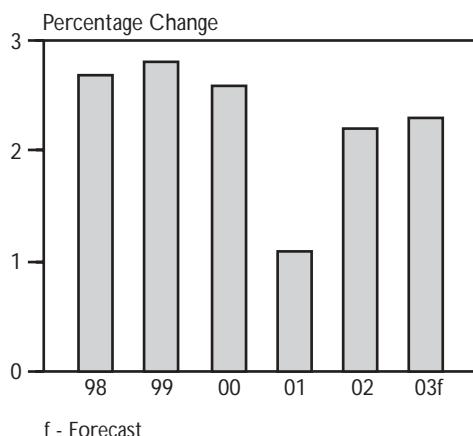


Sources: Statistics Canada and U.S. Department of Commerce

Low interest rates promoted a banner year in Canada's housing sector.

Chart 2

Canada Employment

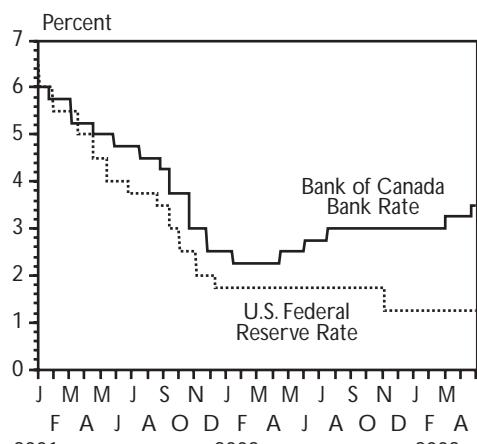


f - Forecast

Sources: 1998-2002: Statistics Canada
2003: average of economic forecasts

Chart 3

Canada and U.S. Interest Rates



Source: Bank of Canada

non-residential structures fell 6.4%, while machinery and equipment spending declined 2.4%.

The weak international economy in 2002 continued to challenge Canadian exporters. Total real exports of goods and services increased only 0.8% after a 3.8% decline in 2001. Total real exports of goods had fallen in each of six consecutive quarters, back to early 2001, and began to turn around only in the latter half of 2002.

Canada's very strong labour market performance in 2002 was a major factor in maintaining consumer confidence. Total employment rose 2.2% from 2001. Full-time employment increased 1.5%, while part-time employment rose 5.6%. However, from January to December of 2002, employment jumped by 560,000, an increase of 3.7%. Despite this strong employment growth, the unemployment rate in 2002 was 7.7%, up from 7.2% in 2001. The higher unemployment rate resulted from strong labour force growth last year, with the labour force participation rate reaching 67.5% in December, a level reached only once before, in January 1990.

The average of projections for national employment growth by independent economic forecasters, compiled by Manitoba Finance, indicates that Canada's employment will grow by 2.3% in 2003 (see Chart 2). The unemployment rate is predicted to fall to 7.3%.

For several months prior to April 2002, short-term interest rates were down to levels not seen in 40 years. In that month, however, concerns about inflationary pressures prompted the Bank of Canada to begin boosting interest rates. On April 17, 2003, the Bank Rate was 3.50%, 125 basis points higher than its most recent low, one year earlier. This tightening of interest rates contrasts sharply with the U.S., where the Federal Reserve has not increased interest rates in light of weak economic conditions throughout 2002 and 2003 (see Chart 3). On April 17, the U.S. Federal Funds rate was 1.25%.

Canada's Consumer Price Index (CPI) inflation in 2002 was 2.2%, below the inflation rate in 2001. However, significant CPI increases were recorded later in the year as a result of higher prices for oil products and natural gas. This higher price level continued through the first quarter of 2003. The survey of economic forecasters shows that Canada's consumer price inflation is projected to average 2.6% in 2003 (see Chart 5). This remains within the Bank of Canada's inflation control target range of 1% to 3%.

The Canadian dollar weakened against the U.S. currency in 2002. The U.S. dollar exchange rate averaged US\$0.637 last year, down from US\$0.646 in 2001. Starting in January 2003, however, the exchange rate increased sharply and has traded mostly in the US\$0.67 – US\$0.69 range through March and April.

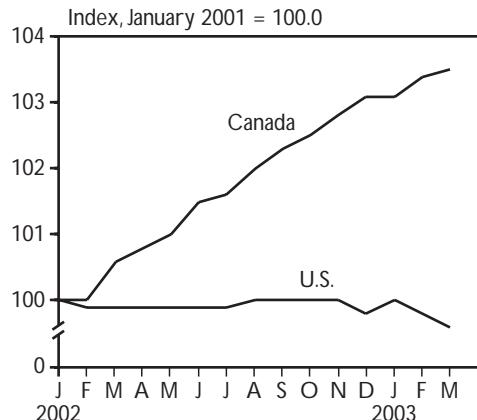
The consensus among economic forecasters is that Canada's real GDP growth will improve in the latter half of 2003. Concerns regarding the resolution of international conflicts and uncertain U.S. economic prospects are expected to dampen economic growth over the first two quarters of the year. Overall, considerable risks regarding the 2003 economic outlook prevail. Currently, Manitoba Finance's survey of economic forecasts shows that Canada's annual real GDP is projected to increase by 3.3% in 2003. Nominal GDP is projected to increase by 5.6%.

MANITOBA ECONOMY

Manitoba's economy grew 3.1% in real terms in 2002, up from 1.5% growth in 2001. Like Canada, Manitoba benefited from strong real consumer expenditure growth, along with solid growth in incomes and strengthening housing prices. Nominal GDP in Manitoba grew 3.5% to \$35.9 billion.

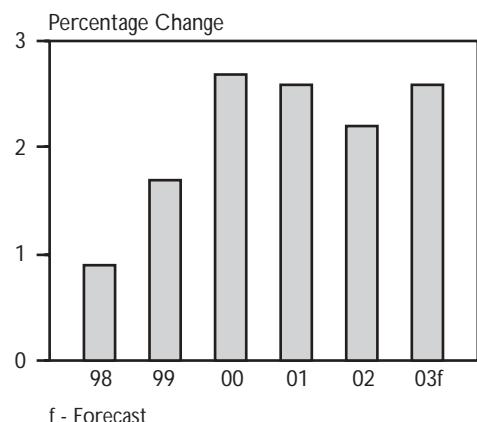
Manitoba's total employment rose by 9,100 in 2002, a 1.6% increase, bringing employment to a record-high level of 567,000. Manitoba's unemployment rate

Chart 4
Monthly Employment in Canada and U.S.
January 2002 to March 2003



Source: Statistics Canada and
U.S. Department of Commerce

Chart 5
Canada Consumer Price Index



Sources: 1998-2002: Statistics Canada
2003: average of economic forecasts

Manitoba Real Gross Domestic Product at Basic Prices By Industry, 2001 and 2002p

(Millions of Constant 1997 Dollars)

	2001	2002p	% Change
Goods	8,388	8,413	0.3
Agriculture	1,424	1,500	5.3
Mining	630	574	-8.9
Other Primary	94	92	-2.1
Manufacturing	3,849	3,905	1.5
Construction	1,284	1,393	8.5
Utilities	1,107	949	-14.3
Services	21,988	22,846	3.9
Transportation & Storage	2,036	2,100	3.1
Information & Culture	1,084	1,124	3.7
Wholesale Trade	1,875	1,988	6.0
Retail Trade	1,675	1,798	7.3
Finance & Insurance	1,248	1,293	3.6
Real Estate	1,992	2,025	1.7
Imputed Rent	2,746	2,865	4.3
Professional Services	925	957	3.5
Other Business Services	567	575	1.4
Government	2,205	2,262	2.6
Education	1,602	1,618	1.0
Health & Social Services	2,210	2,356	6.6
Arts, Entertainment & Recreational Services	316	333	5.4
Accommodation & Food	681	713	4.7
Other Services	826	839	1.6
GDP at Basic Prices	30,376	31,259	2.9

p – Preliminary

Note: Statistics Canada's methodology for measuring the real value of output by industry has changed from Factor Cost to Basic Price. Basic Price GDP corresponds to net income generated from production after excluding taxes (GST and PST for example) and includes subsidies that apply only on intermediate goods and services. This replaces the concept of Factor Cost GDP, which excludes all taxes and includes all subsidies (such as labour-training subsidies).

Source: Manitoba Bureau of Statistics

of 5.2% was the lowest rate among provinces and below the national rate of 7.7%. Manitoba's youth unemployment rate of 10.2% was also the lowest among provinces and well below the national rate of 13.6%. This strong labour market performance boosted labour income by 4.4%. The Manitoba Bureau of Statistics (MBS) estimates that personal

income increased by 2.4% in 2002, while personal disposable income advanced by 3.0%.

Statistics Canada's February 2003 Private and Public Investment (PPI) survey indicates that total new capital investment for Manitoba is forecast at \$5.96 billion in 2003, up 2.8% from 2002, and slightly above the national increase of 2.1%. Private capital investment is estimated to increase 0.4%, while public investment is expected to increase by 10.3%. Based on Statistics Canada's survey, Manitoba will have seen private capital investment increase in each of the last four years (2000–2003).

Manitoba's goods producing industries had mixed results last year. Both manufacturing and agriculture posted gains in production in 2002. Output in the mining sector and hydro-electricity declined. Manitoba's housing sector enjoyed exceptionally strong performance, as a positive labour market and very low interest rates combined to boost housing starts and resale activity.

Manitoba retail sales increased 6.9% in 2002 to \$10.6 billion. This was the highest annual retail sales increase in five years.

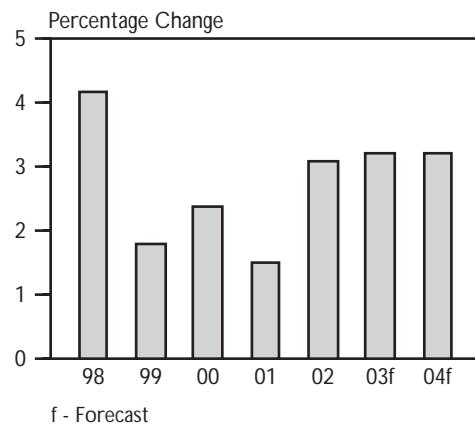
Manitoba's consumer price inflation in 2002 was 1.6%, down from 2.6% in 2001, and the lowest rate among provinces. The prices for shelter, energy, and clothing and footwear declined, while prices for most other categories increased modestly. The exception was the tobacco and alcohol component which jumped 15.7%, in line with the national increase of 17.6%. According to Manitoba Finance's survey of economic forecasts, Manitoba's CPI inflation is expected to remain moderate with increases of 2.2% and 1.7% in 2003 and 2004, respectively. In both years, inflation is expected to be lower than the national average.

Based on Manitoba Finance's survey of economic forecasts, Manitoba's rate of real economic growth is projected to rise to 3.2% for both 2003 and 2004 (see Chart 6). In 2003, Manitoba's growth will be third-best among provinces.

"Solid Steady Growth a Theme in Manitoba – Shrugging off a delayed U.S. recovery, Manitoba posted a healthy 3.1% real GDP advance last year."

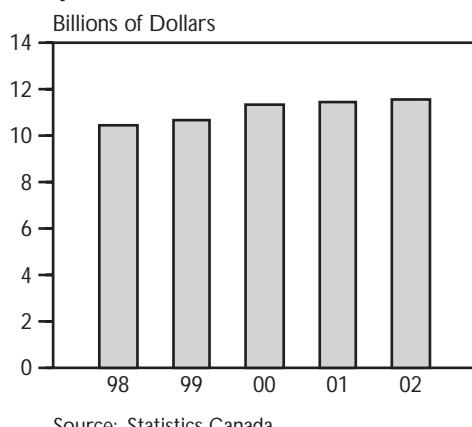
CIBC World Markets
March 2003

Chart 6
Manitoba Real
Gross Domestic Product



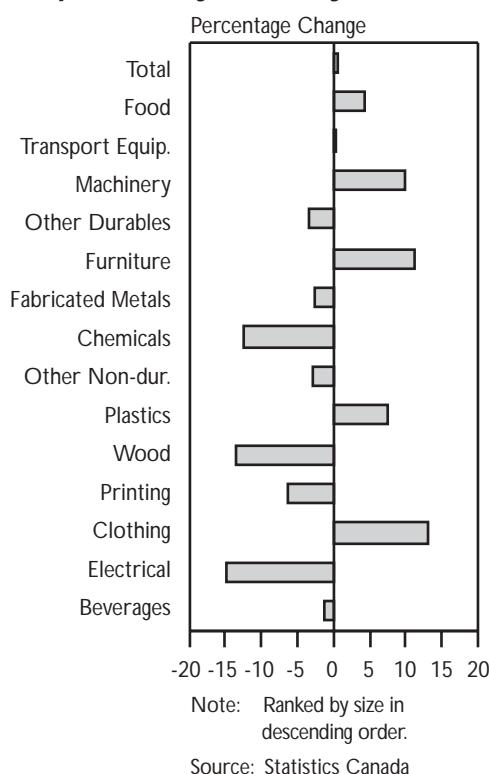
Sources: 1998-2002: Manitoba Bureau of Statistics
2003-2004: average of economic forecasts

Chart 7
Manitoba Manufacturing Shipments



Source: Statistics Canada

Chart 8
Manitoba Manufacturing Shipments by Industry, 2002



Source: Statistics Canada

■ Manufacturing

The value of Manitoba's manufacturing shipments grew 0.6% in 2002 to \$11.5 billion, below the national increase of 1.9% (see Chart 7). However, while Canada's manufacturing shipments slipped in 2001, Manitoba's grew. Manitoba is the only province outside of Atlantic Canada to maintain three consecutive years of rising shipments, despite weak international markets.

Six of fourteen manufacturing industry categories posted gains in 2002 shipments (see Chart 8). The three largest manufacturing categories in the province – food processing, transportation equipment, and machinery – all posted gains. The largest declines among the industry categories were in electrical equipment (-14.7%), wood products (-13.5%), and chemicals (-12.5%).

Shipments from Manitoba's food processing industry increased by 4.3% last year. Food processing is Manitoba's largest manufacturing industry, and shipments have grown strongly over the past several years, posting a 42% increase since 1998. Processed food products are an important export category, accounting for 11.3% of Manitoba's total foreign merchandise exports. Linked to Manitoba's large and diversified agriculture sector, principal processed food products include processed meats, frozen potato products and other prepared vegetables, and dairy products.

Transportation equipment is Manitoba's second-largest manufacturing sector, accounting for 13.9% of manufacturing shipments and 10.1% of the province's total foreign merchandise exports. The sector has two major components: bus manufacturing and aerospace firms. Within Manitoba's aerospace industry, economic activity is divided about equally between manufacturing and repair/overhaul.

Transportation equipment shipments increased only slightly in 2002 as the weaker overall economic

situation, combined with concerns regarding air travel in the wake of the tragedy of 9/11, depressed aircraft manufacturing and related activities. Manitoba's major bus manufacturers face favourable prospects over the medium term as production levels are expected to increase through to 2004. The consolidation of much of Motor Coach Industries' production assets into Manitoba will further strengthen the outlook for the industry in the province. Manitoba is currently North America's largest producer of buses.

Statistics Canada's survey of Private and Public Investment indicates that the level of manufacturing capital investment in Manitoba declined 4.0% in 2002, somewhat better than the national investment decline of 11.9% (see Chart 9). For 2003, the survey suggests that capital investment in manufacturing will increase by 5.3%, just below the national increase of 6.6%. Capital investment in Manitoba's manufacturing sector over the last five years (1998–2002) is an estimated \$2.9 billion.

Weaker performance in several manufacturing industries led to a 2.8% decline in 2002 manufacturing employment in Manitoba. Manufacturing employment in the province was 68,800 last year, accounting for about 12.1% of total employment.

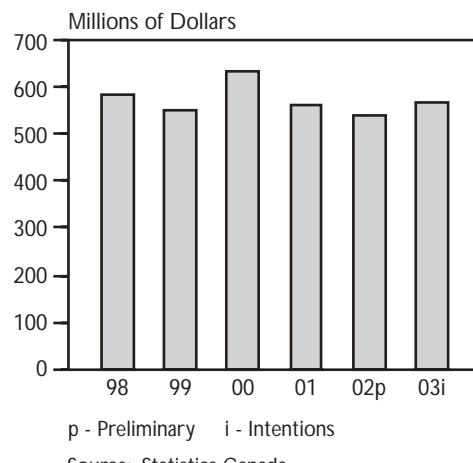
Manufacturing is Manitoba's largest industry, accounting for 12.5% of GDP. It is highly diversified, producing a broad range of industrial and consumer goods.

In 2002, manufacturing industries accounted for two-thirds of Manitoba's total foreign merchandise exports. Approximately 70% of Manitoba's merchandise exports to the United States are manufactured goods.

■ Agriculture

Like the provincial economy overall, Manitoba's agriculture sector is highly diversified. In 2002, crops accounted for 52% of total market receipts in

Chart 9
Manitoba Manufacturing Investment



“Manitoba’s manufacturing sector is the province’s largest industry, accounting for about 13% of GDP in 2001. Manitoba’s manufacturing sector is well diversified over a broad range of consumer and industrial goods, and has been one of the main drivers behind Manitoba’s strong showing during the past few years.”

Standard and Poor's
July 2002

Chart 10
Manitoba Farm Cash Receipts

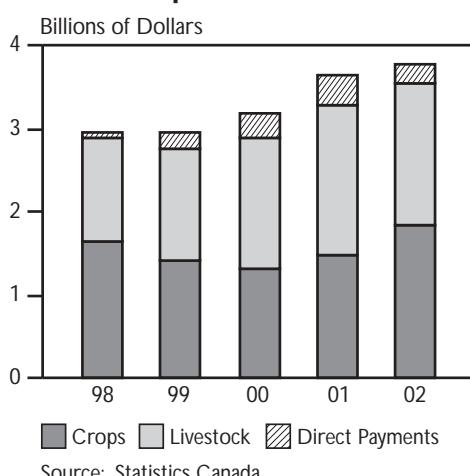
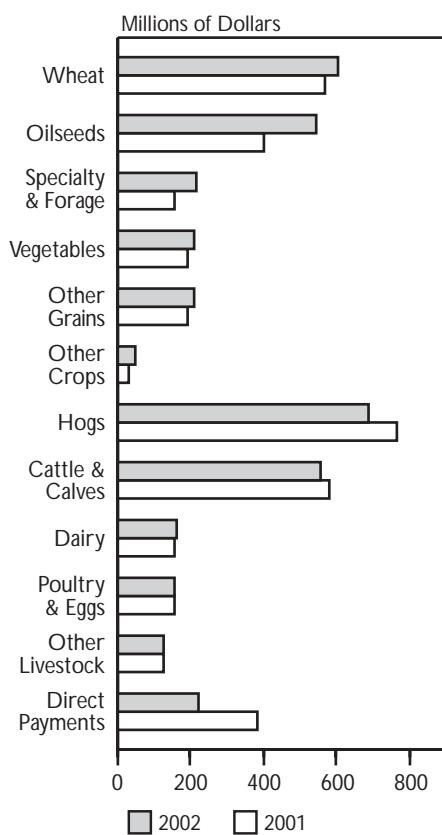


Chart 11
Manitoba Farm Cash Receipts by Product, 2002 and 2001



agriculture, while livestock accounted for 48%. Within these broad categories of production, Manitoba producers market a wide range of livestock and crop commodities. Agriculture accounts for about one-fifth of Manitoba's foreign commodity exports, and 4.8% of Manitoba's GDP. In 2002, the agriculture sector employed about 32,000 persons, or about 5.6% of the total employed labour force.

2002 was a better year for Manitoba's agriculture industry overall. Most crop prices increased while cattle and hog prices declined. Total farm cash receipts increased 2.9% to \$3.76 billion. Crop receipts surged 24.4%, and livestock receipts fell 5.2% (see Chart 10). Market receipts – that is, receipts excluding direct payments to producers – increased 8.3%. Market receipts have increased considerably over the past few years, rising by 28.9% since 1999. Manitoba's total farm cash receipts account for about 10.5% of the national total.

Most areas of Manitoba were spared the drought conditions that plagued large portions of the U.S. and Canadian prairies. Despite lower volumes of major grains produced in 2002, good prices offset most of the yield declines to push crop receipts up 24.4% to \$1.85 billion.

Wheat receipts, which account for one-third of the Manitoba crops, increased by 6.8% to \$605.3 million. Prices underlying receipts increased 9.6%, while total production of all wheat varieties slipped. Last year, Manitoba producers seeded 1.4 million hectares of wheat, accounting for 28% of the province's total seeded area.

Manitoba's oilseeds receipts are dominated by canola sales. In 2002, receipts from oilseeds jumped 35.2%. This increase was driven largely by price, as marketings of canola in 2002 were largely unchanged from 2001. Canola producers seeded 0.9 million hectares last year, accounting for about 18% of the province's total seeded area.

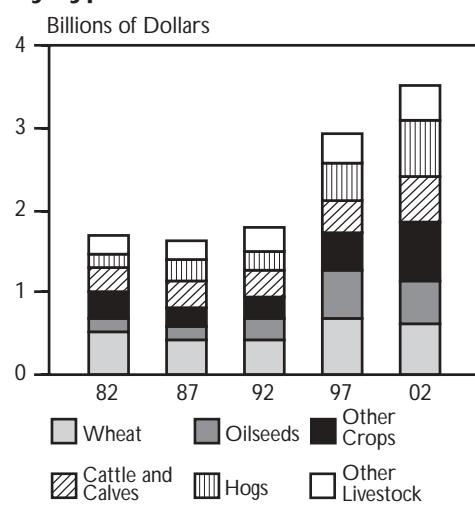
Extremely dry weather in many parts of the prairies outside of Manitoba resulted in reduced production and substantial price increases for forage crops. In 2002, receipts to producers from specialty and forage crops increased 37.9% to the highest level ever recorded. Tame hay and silage crops together accounted for 19% of Manitoba's total seeded area in 2002.

Manitoba producers market a wide and growing variety of other products, including barley, mustard seed, flax and vegetables. The growth of a number of non-traditional crop products underscores the continuing diversification of Manitoba's agricultural base (see Chart 12). For example, in the last decade, Manitoba's share of Canada's dry bean production has increased from just 7% in 1993 to 57% in 2002. Similarly, potato production has increased from just \$58 million in 1993 to \$135 million last year. Over the same period, potato product exports have risen from \$52 million to \$176 million. Manitoba has gone from being a fringe producer of potatoes to being the second-largest potato producer in Canada behind Prince Edward Island. The growth of potato processing in the province, producing products like frozen potato chips for world markets, has not only boosted potato growing in the province, it has substantially increased the higher value-added food processing activity undertaken in Manitoba. The completion of Simplot's new \$150 million potato processing plant in Portage la Prairie this year will extend Manitoba's position as a major international food processing centre, and will further enhance diversification within the agriculture sector.

Unlike crop producers, Manitoba's livestock producers saw receipts fall last year. Total receipts declined 5.2% in 2002 after several years of very strong growth. Total livestock receipts in 2002 were \$1.7 billion.

Weaker prices for hogs pushed receipts down 10.2%, even as the number of marketed hogs rose 6.2%. In

Chart 12
Manitoba Market Receipts by Type



Source: Statistics Canada

The growth of a number of non-traditional crop products underscores the continuing diversification of Manitoba's agricultural base.

the previous three years, annual receipts from hogs had increased by 93.2%. In 2002, Manitoba produced 6.7 million hogs, or 24% of the national total.

Like hog producers, Manitoba cattle and calves producers have benefited from exceptionally strong growth in receipts over the last several years. However, receipts slipped 4.0% in 2002 as weaker prices offset increased sales.

Direct payments to Manitoba producers – various forms of insurance and income assistance including crop insurance, income stabilization and disaster adjustment programs – declined last year. Direct payments are expected to remain stable in 2003.

■ Mining

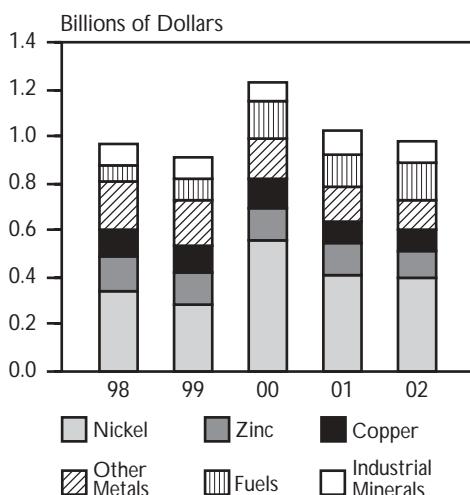
The value of Manitoba's mineral production declined by 4.0% last year to \$982 million. This was the second consecutive annual decline, coming after a 17.1% reduction in 2001 (see Chart 13).

The value of nickel production fell 3.5% in 2002 as reduced production volumes more than offset the 6.5% increase in average price. The strengthening of world nickel prices at the beginning of 2003 bodes well for this industry in the current year. At \$398 million, nickel is Manitoba's most important mineral product, accounting for 40.5% of the province's total value of mineral production.

Zinc accounted for 11% of Manitoba's mineral production in 2002. The value of zinc production in Manitoba fell 15.7% last year due to slightly lower production volumes, combined with a 13.3% decline in average price. The value of zinc production in Manitoba has fallen for five consecutive years due largely to weak international prices.

Copper, which accounts for 9% of Manitoba's mineral production, saw moderate declines in both price and the volume of production in 2002, bringing the total value of production down 4.4%.

Chart 13
Manitoba Mineral Production



Source: Natural Resources Canada

The weak price performance for several metals has resulted in some mine closures in Manitoba over the past two years. In June 2002, Hudson Bay Mining and Smelting closed the Ruttan Mine in Leaf Rapids. The mine had produced copper and zinc. In 2001, the Harmony Gold mining operation ceased production. This gold mine, located near Bissett, was placed in "care and maintenance" mode, and the mine is presently for sale. The termination of operations of the Bissett mine left the Kinross/New Britannia facility at Snow Lake as Manitoba's only operating gold mine.

Mining investment in Manitoba declined by 16.2% last year to \$209 million (see Chart 14). Mining investment is expected to slip further in 2003, with Statistics Canada's PPI survey estimating a 12.9% reduction. Several major investment projects are planned to enhance Manitoba's mining industry in the future. Both Inco Limited and Hudson Bay Mining and Smelting announced major multi-year investment projects for Manitoba over the coming years.

Oil producers in Manitoba's southwest saw the value of oil shipments increase by 10.5% to \$152.6 million. While the volume of production declined slightly last year, strengthening oil prices pushed up total production values. Manitoba's oil industry, while much smaller than those of neighbouring Saskatchewan and Alberta, employs 300 people and has benefited from considerable industry investment over the past several years. In 2002, 97 new wells were drilled, with a similar number of new wells anticipated in 2003.

Sustaining the level of mineral production requires new exploration to secure reserves. In Manitoba, exploration expenditures were estimated at \$26.5 million, 7% below the 2001 level, but in line with the recent five-year average annual exploration spending. Exploration is currently under way in several regions of Manitoba, focussing on several minerals including diamonds, gold, platinum, nickel, copper and tantalum.

Chart 14
Manitoba Mining Investment

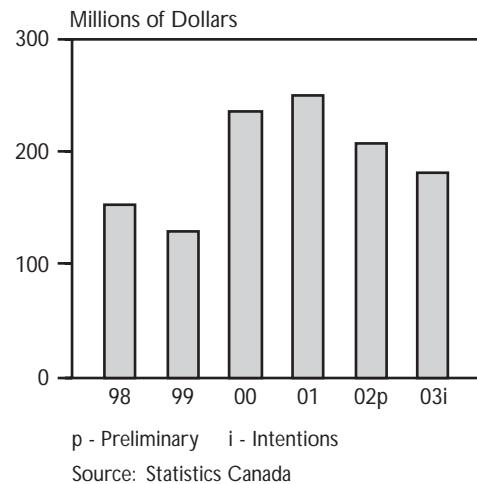
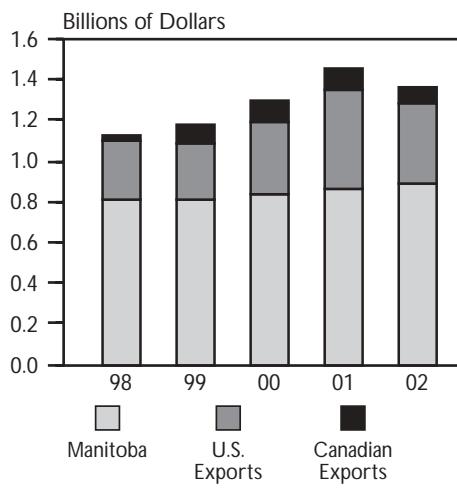


Chart 15
Manitoba Hydro-Electricity
Sales



Source: Manitoba Hydro-Electric Board

■ Hydro-Electricity

Manitoba Hydro is Manitoba's largest utility and accounts for virtually all electricity generation, transmission and distribution in the province. Almost all of Manitoba Hydro's electricity is produced by water, a renewable source of energy. Currently, Manitoba Hydro has a generating capability of more than 5,000 MW, with the potential for further economical hydro generating capacity in excess of 5,000 MW.

The value of hydro-electricity sales in Manitoba declined 6.6% in calendar year 2002 to \$1.36 billion (see Chart 15). This was the first annual decline in hydro energy sales in 14 years. The decline was largely due to the reduced out-of-province electricity sales last year, reflecting the impact of low water flow for hydraulic generation.

Manitoba sales, which account for approximately two-thirds of total hydro sales value, increased 3.2%. Total gross exports, which account for the remainder of sales, declined 20.8%, albeit to the second-highest level ever recorded. The value of export sales had more than doubled between 1997 and 2001, driven by strong increases in exports to the United States and good water flows. Electricity exports to the U.S. account for about 83% of total provincial out-of-province sales.

Presently, Manitoba Hydro is working closely with northern Aboriginal communities in respect of potential new generating facilities in their areas. Two such facilities are under active consideration. The proposed Wuskwatim generating station would be built on the Burntwood River in Northern Manitoba and would generate 200 MW of power, with the earliest in-service date being 2009. The Gull (Keeyask) generating facility is another potential generating site. The Gull station would produce about 650 MW of power, with the earliest possible in-service date being 2012. Construction of the Gull facility would also require the construction of a transmission line to deliver power

to Southern Manitoba. The combined cost of these two generating projects, as well as the required transmission facilities, is approximately \$4 billion.

Another option under active consideration is the development of the Conawapa site. This 1,400 MW generating facility project would be similar in magnitude to Manitoba's Limestone facility project, currently the largest single generating station in Manitoba.

In August 2002, Manitoba Hydro signed a 10-year agreement with Xcel Energy, based in Minnesota, for the export of 500 MW of electricity from Manitoba to Minnesota starting in 2005. The agreement builds on the long-standing arrangements with Xcel Energy and is expected to produce \$1.7 billion in revenue over the life of the contract. Manitoba exports to Minnesota account for about 10% of electricity used in that state.

In July 2002, two capital projects were completed at Manitoba's non-hydro generating facilities. First, two natural gas-fired generating units with a total capability of 260 MW were completed in Brandon. Combined with the 105 MW coal burning unit (the only coal-fired unit in Manitoba) Brandon's overall generating capacity is more than 360 MW. Second, Manitoba Hydro completed the conversion of the Selkirk generating station from coal power to natural gas.

These projects – with a combined investment of more than \$200 million – enhance the utility's leadership in protecting the environment and strengthen its position as a leader among Canadian utilities in voluntarily reducing greenhouse gas emissions. In the future, Manitoba Hydro is prepared to play an increasingly important role in meeting more of North America's electrical energy needs through environmentally desirable hydro-electric resources, and in so doing, will continue to reduce global greenhouse gas emissions. Last year, Manitoba Hydro exports are estimated to have displaced between 7 and 12 mega-tonnes of greenhouse gas emissions in Canada and the U.S.

Presently, the utility is working closely with northern Aboriginal communities in respect of potential new generating facilities in their areas.

In August 2002, Manitoba Hydro signed a 10-year agreement with Xcel Energy, based in Minnesota, for the export of 500 MW of electricity from Manitoba to Minnesota starting in 2005.

*In September 2002,
Manitoba Hydro completed
the purchase of Winnipeg
Hydro from the City
of Winnipeg.*

Through its Power Smart programs, Manitoba Hydro remains a leader in energy conservation programs among utilities in North America. Over the past several years, Power Smart initiatives have achieved estimated savings of 185 MW in demand and continue to save Manitobans millions of dollars in energy costs. Manitoba Hydro is targeting a saving of 356 MW by the end of 2011/12.

In September 2002, Manitoba Hydro completed the purchase of Winnipeg Hydro from the City of Winnipeg. The purchase allows Manitoba Hydro to serve all Manitoba electricity customers. The utility also announced that it will construct a 400,000 square foot office complex in downtown Winnipeg as its new headquarters, and in March 2003, invited expressions of interest in the preliminary stages of the new facility.

■ Housing

2002 was a banner year for Manitoba's housing industry. The number of housing starts in Manitoba increased by 22.1% to 3,617, the highest level since 1989 (see Chart 16).

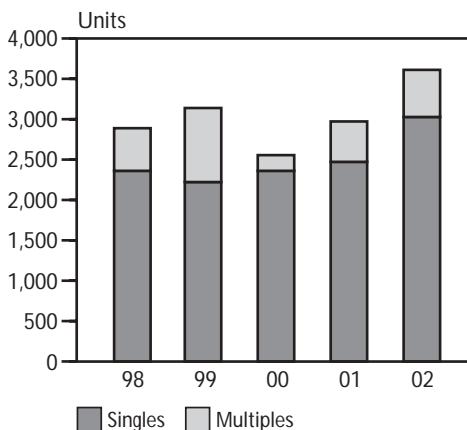
The number of new single-family dwellings in Manitoba rose by 22.6%. Both rural and urban housing starts growth was strong.

Multiple-unit housing starts rose 19.5%, about the same as the national increase. 601 multiple-unit starts were posted in 2002.

For 2003, Canada Mortgage and Housing Corporation (CMHC) projects that Manitoba's housing starts will decline to 3,200 units. CMHC projects that Manitoba's single-family housing starts will decline to 2,500 from 3,016 last year. Multiple-unit starts are projected to increase from 601 to 700.

Like in Canada overall, house prices in Manitoba increased last year. House price surveys by Royal LePage Real Estate Services show that the average house price for bungalows, two-story homes and condominiums in Winnipeg increased by approximately 10%.

Chart 16
Manitoba Housing Starts



Source: Canada Mortgage and Housing Corporation

The total value of building permits issued in Manitoba in 2002 increased 20.8%, higher than the national increase of 16.2%. Manitoba's increase was fourth-best among provinces. The value of residential building permits issued was \$440.8 million, an increase of 29.4% from 2001.

The Winnipeg Real Estate Board reported that total Multiple Listings Service sales in 2002 were 10,539 units. This was the Board's best year on record as dollar volume exceeded the billion-dollar mark for the first time.

■ Retail Sales

Manitoba retail sales increased 6.9% in 2002 to \$10.6 billion. This was the largest annual retail sales increase in five years and higher than the national increase of 6.0% (see Chart 17).

Favourable borrowing rates, attractive dealer incentives and a healthy job market helped drive up automobile sales in the province last year. Total motor vehicle establishment sales increased 11.8%, higher than the national increase of 7.9%.

Statistics Canada's survey of total motor vehicle sales indicates that the number of units sold in Manitoba in 2002 increased to over 49,000, a 13.9% jump from 2001. This was the strongest increase among provinces, and well above the national increase of 8.5%. The level of new car sales in Manitoba last year was the highest since 1987.

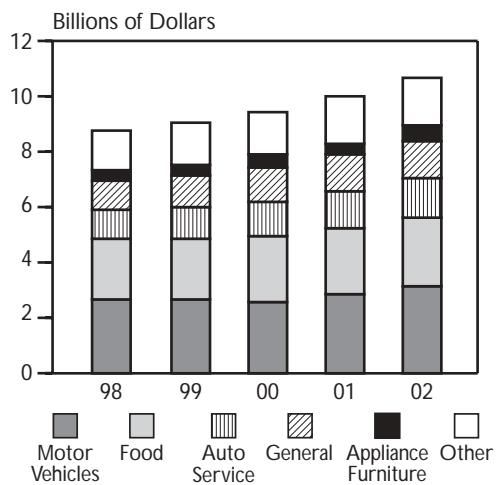
Strong housing investment last year also promoted growth in appliance and furniture sales. These sales increased 9.7%, just below the national increase of 10.7%. All other retail categories increased.

The growth in retail sales in Manitoba was equally strong in Winnipeg and in areas outside Winnipeg, with increases of 7.0% and 6.8% respectively.

In an environment of rising interest rates, Manitoba's lower debt levels will help support personal expenditure growth relative to higher-debt

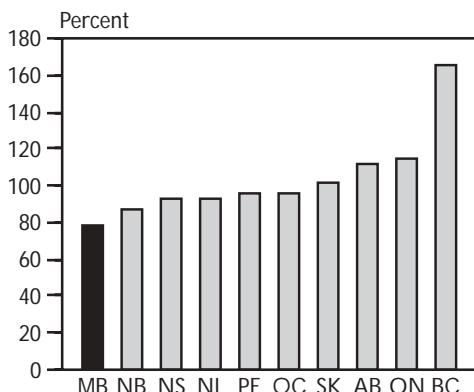
The total value of building permits issued in Manitoba in 2002 increased 20.8%.

Chart 17
Manitoba Retail Trade by Type



Source: Statistics Canada

Chart 18
**Household Debt as a
 Percentage of Personal
 Disposable Income, 2001**



Sources: TD Bank Financial Group

The overall dollar value of expenditure associated with the conventions and meetings in Manitoba increased 2.6% to \$44.2 million.

regions. Among provinces, Manitobans have the lowest debt-to-income levels in Canada. In 2001, the ratio of household debt to personal disposable income was 77.9%, well below the national average of 113.0% (see Chart 18).

■ Tourism

Across the globe, tourism and related industries were adversely affected last year as travelers were influenced by concerns related to personal security.

Manitoba was the only province to report an increase in the number of direct entries by overseas visitors in 2002. Moreover, the estimated number of one-or-more night trips, by U.S. residents directly entering Manitoba by automobile, increased 5.5% from 2001. The number of U.S. residents directly entering Manitoba using modes other than automobile for one or more nights increased by 5.7%.

The overall dollar value of expenditure associated with the conventions and meetings in Manitoba increased 2.6% to \$44.2 million. While the number of meetings and conventions declined slightly last year, there was a small increase in the number of delegates to these events.

Manitoba has a history of successfully hosting major national and international events. In 2002, the province hosted the North American Indigenous Games with 7,000 athletes, coaches and officials. In 2003, the province hosts the World Curling Championships with 2,000 delegates, the Western Canada Summer Games with 2,400 participants, the World Senior Softball Championships with 3,000 delegates, the National Slo-pitch Championships with 1,000 delegates and the RCMP Aboriginal and Diversity Law Enforcement Conference with 800 delegates.

■ Labour Market

2002 was a strong year for Manitoba's labour market performance. The overall unemployment

rate increased to 5.2% from 5.0% in 2001, while Canada's rate increased to 7.7% from 7.2% in 2001 (see Chart 19). Manitoba had the best unemployment rate in Canada last year. Manitoba's youth unemployment rate was also the best in Canada at 10.2%, well below the 13.6% national rate. The province achieved low unemployment rates despite a record-high increase in the labour force.

Manitoba's total employment rose by 9,100 jobs, or 1.6% (see Chart 20), below Canada's employment increase of 2.2%. Manitoba and Canada both achieved record-high levels of employment in 2002.

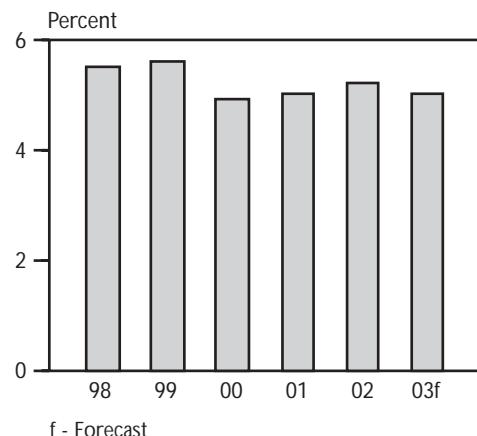
Like Canada, the growth rate of part-time employment exceeded growth of full-time employment in Manitoba. Full-time employment increased by 0.8%, while part-time employment rose by 5.2%.

Manitoba's private sector accounted for approximately three-quarters of all net jobs created in Manitoba in 2002. Service sector employment, which accounts for 76% of total Manitoba employment, advanced 2.8% in 2002, while goods sector employment slipped 1.8%.

Manitoba's youth employment exceeded 98,000 last year, its highest level since 1990. After falling through most of the 1990s, Manitoba's youth employment has increased for four consecutive years.

Manitoba's labour force increased dramatically in 2002. Total labour force increased by 10,900, or 1.9%, the strongest rate of labour force growth in over 15 years. Similarly, Manitoba's labour force participation rate increased to 69.2% from 68.1% in 2001, the highest labour force participation level ever recorded, and second in Canada behind Alberta. Increased labour force participation helped ease some of the tight labour supply conditions in the province last year.

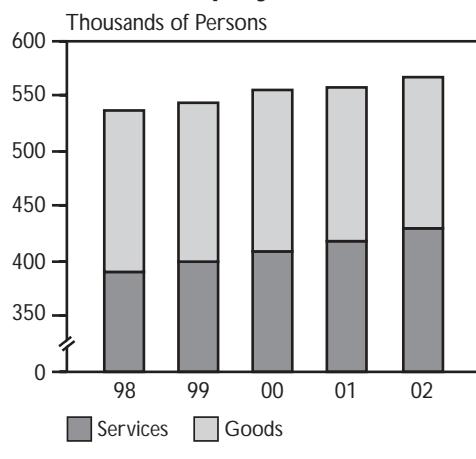
**Chart 19
Manitoba Unemployment Rate**



f - Forecast

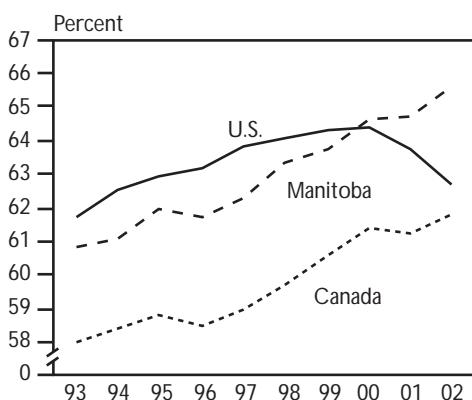
Sources: 1998-2002: Statistics Canada
2003: average of economic forecasts

**Chart 20
Manitoba Employment**



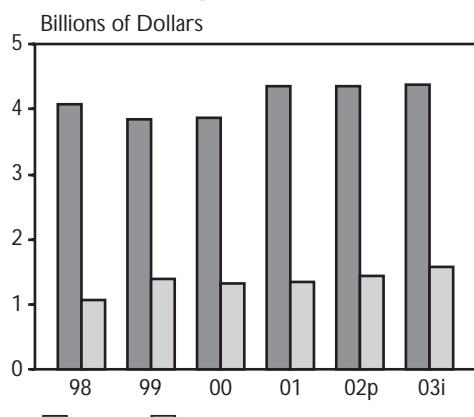
Source: Statistics Canada

Chart 21
Manitoba, Canada and U.S.
Employment Rate



Source: Statistics Canada and
U.S. Department of Commerce

Chart 22
Manitoba Capital Investment



p - Preliminary i - Intentions

Source: Statistics Canada

Manitoba's employment rate – the ratio of employed to the total of the working-age population – also increased to a record-high level of 65.6% (see Chart 21). Like the participation rate, Manitoba's employment rate is the second-highest among provinces in Canada, behind Alberta.

■ Investment

Total new capital investment in Manitoba is estimated to have increased by 1.5% in 2002, according to Statistics Canada's Survey of Private and Public Investment. Total investment is forecast to rise to \$5.96 billion in 2003, up by \$164 million, or 2.8%. This projected growth is somewhat stronger than the projected gain of 2.1% nationally (see Chart 22).

Manitoba's private capital investment, which accounts for about three-quarters of total investment in Manitoba, rose by 0.1% in 2002. While relatively modest, the increase outpaced Canada overall, where private investment levels declined by 0.5%. In 2003, Manitoba's increase is estimated at 0.4%.

Despite the U.S. recession and generalized economic weakness in Canada over much of the past few years, Manitoba's economy benefited from continually increasing levels of private sector capital investment. Manitoba is one of only two provinces that will see four consecutive years of private sector investment growth (2000–2003).

Public capital investment in Manitoba increased by 6.1% in 2002, below the national increase of 14.1%. Public capital spending, which includes investment by federal, provincial and local government, is estimated to increase by 10.3% in 2003, above the projected national increase of 6.9%.

Investment by various industries was mixed last year. Eight of 17 industry categories posted lower investment. In 2003, six of 17 categories are expected to post lower investment. Major increases

are anticipated in education services (+22.4%) and retail trade (+16.8%). Declines are expected in other services and in mining (-12.9% in each category). Housing investment, which posted a 21.2% gain in 2002, is expected to stay relatively stable in 2003.

In April 2003, the Government of Manitoba and the federal government announced that they would jointly provide \$160 million toward the expansion of the Red River Floodway. The expansion investment responds to the recommendations of the International Joint Commission Task Force on the Red River valley flooding issue, and will involve enhancements to various components of the existing flood control works and the Floodway diversion system. The first phase of the Floodway expansion will more than double the protection offered by the current Floodway. Over the next several years, the Red River Floodway expansion will provide substantial economic benefits to Manitoba.

Several other major capital investments are planned or under way for 2003. Examples include the following projects.

Construction of the **Richardson Centre for Functional Foods and Nutraceuticals** will begin at the University of Manitoba's SMARTpark in the autumn of 2003, with completion expected by the end of 2004. This \$25 million facility will bring together researchers from the agriculture, foods sciences, human nutrition, medicine and pharmacology disciplines, along with their industry partners to study and develop functional foods and nutraceuticals.

Construction is under way on the new \$25 million **I.H. Asper Clinical Research Institute** adjacent to the St. Boniface General Hospital Research Centre. The new 100,000 square foot research facility will help further cardiac and vascular care through the bridging of research and patient care, and will provide the clinical resources necessary for the

Manitoba is one of only two provinces that will see four consecutive years of private sector investment growth.

“The province’s attractiveness as an investment location has aided the near-term outlook.”

CIBC World Markets
March 2003

Housing investment, which posted a 21.2% gain in 2002, is expected to stay relatively stable in 2003.

"Strong fundamentals support the stability of Manitoba's economy, including one of Canada's most diversified business mixes, reduced dependence on primary sectors, one of the lowest provincial unemployment rates and below-average dependence on foreign markets."

Dominion Bond Rating Service
June 2002

improvement of medicines and treatments. The facility is slated to open in the fall of 2003. The new institute will have an annual operating budget of \$30 million and a staff of 300.

Construction is also under way for an \$8.5 million, 65,000 square foot expansion to the **Cangene Corporation** pharmaceuticals manufacturing facility at SMARTpark.

Biovail Corporation is undertaking a \$24.8 million, 40,000 square foot expansion of its Steinbach biopharmaceutical manufacturing facility. When the expansion is completed later in 2003, Biovail will add about 200 employees to its existing production staff.

Brett-Young Seeds has just completed a 9,600 square foot R&D facility at the company's Winnipeg head office, the result of a \$20.7 million expansion. Brett-Young Seeds is Canada's leading independent seed company.

The new \$10 million, 43,000 square foot **Industrial Partnership Facility** will be built adjacent to the National Research Centre's **Institute for Biodiagnostics (IBD)**. The new facility will incubate start-up companies from the high-tech medical technology sector and spin-offs from the NRC, assisting them to become self-sustaining.

J.R. Simplot is investing over \$150 million in the first phase of a new potato processing plant near Portage La Prairie. The first stage of the project will employ 230 staff. This project has also involved an additional \$22 million of indirect investment in related infrastructure. This first phase of the J.R. Simplot investment will promote a significant expansion in potato production, helping to boost producer incomes and promoting continued diversification of Manitoba's agri-food sector.

Motor Coach Industries (MCI) is investing \$40 million in its Winnipeg employees, assembly plants, and product development. MCI is consolidating coach production and engineering for

its intercity coach models into one major world class, state-of-the-art manufacturing facility in Winnipeg.

Cormer Group Industries, established in 1988, is completing a \$12 million, 20,000 square foot expansion to its facilities. The expansion and new equipment will enable the company to add leading-edge capabilities to its business of supplying precision machining services to the aerospace sector. The expansion will eventually add 70 jobs, doubling the current work force.

Monarch Industries Ltd., founded in 1935, is completing a \$13 million relocation and expansion of its Winnipeg facilities. Monarch employs over 500 people in Winnipeg and Winkler and manufactures pumps, hydraulic cylinders, mixers and custom castings that it markets throughout North America.

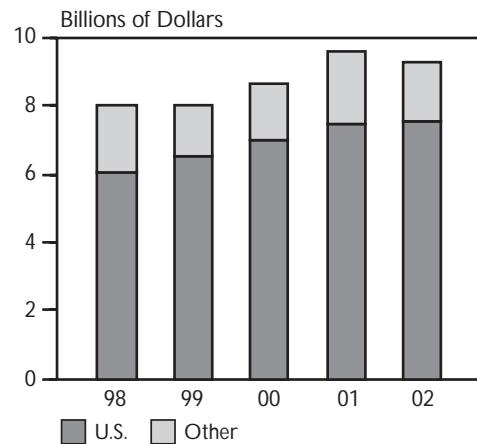
■ Foreign Markets

Canada's foreign merchandise exports slipped last year due to weaker export markets. Total foreign merchandise exports declined 3.1% in 2002, in line with the national decline, as the slowing U.S. economy and declining overseas markets both contributed to the weaker performances last year (see Chart 23).

Merchandise exports to the U.S. rose 1.0% in 2002, following a 7.8% increase in 2001. In both years, Manitoba did better than Canada overall, where exports to the U.S. declined 2.3% after falling 2.4% in 2001. To a large degree, Manitoba's better export performance is linked to the province's diverse export base. Manitoba is the only province in Canada to post higher exports to the U.S. in each of 2001 and 2002. Merchandise exports to the U.S. comprise 82% of Manitoba's total foreign merchandise exports compared to 87% for Canada overall.

Exports to non-U.S. markets declined by 18.2% last year. Merchandise exports to Japan (Manitoba's

Chart 23
Manitoba Foreign Exports



Source: Statistics Canada

To a large degree, Manitoba's better export performance is linked to the province's diverse export base. Manitoba is the only province in Canada to post higher exports to the U.S. in each of 2001 and 2002.

Manitoba Foreign Exports

BY INDUSTRY	1998	1999	2000	2001	2002(p)	2002(p) Share
	(Millions of Dollars)					(%)
Manufacturing						
Food	1,040.5	834.2	830.0	995.9	1,045.7	11.3
Transportation Equipment	1,048.1	1,229.6	1,053.0	1,139.7	941.1	10.1
Primary Metals	716.0	608.1	745.8	803.5	847.1	9.1
Machinery	718.4	503.9	584.8	535.9	676.4	7.3
Wood	351.8	505.6	540.8	531.4	573.4	6.2
Chemicals and						
Chemical Products	232.0	333.6	359.2	418.1	402.6	4.3
Paper and Allied	236.2	240.9	268.6	254.9	267.9	2.9
Plastic Products	137.4	170.0	178.5	210.5	221.3	2.4
Printing, Publishing and Allied	92.9	101.4	124.8	165.6	194.0	2.1
Electrical and						
Electronic Products	303.7	235.7	274.7	273.8	188.3	2.0
Furniture and Fixtures	131.1	128.0	158.2	171.5	166.7	1.8
Refined Petroleum and						
Coal Products	65.3	88.5	205.8	118.7	135.5	1.5
Clothing	119.2	130.4	154.0	130.9	120.4	1.3
Other Manufacturing	212.3	237.7	268.7	278.7	307.7	3.3
Total Manufacturing	5,404.9	5,347.6	5,746.8	6,029.1	6,088.1	65.6
Agriculture	1,775.2	1,575.0	1,594.1	2,030.0	1,733.1	18.7
Electricity	356.2	343.0	442.7	534.7	389.5	4.2
Other Primary	354.3	550.5	639.8	714.5	792.4	8.5
Other Exports	178.0	222.9	255.4	267.8	278.0	3.0
Total Exports	8,068.5	8,039.1	8,678.8	9,576.1	9,281.1	100.0
BY DESTINATION						
United States	6,068.5	6,495.3	6,973.6	7,517.8	7,596.5	81.8
Japan	403.5	378.3	370.3	454.6	469.0	5.1
Mexico	141.1	105.5	124.8	177.3	138.5	1.5
Hong Kong	231.8	57.1	128.6	140.2	111.9	1.2
Belgium	119.1	88.2	127.5	147.5	109.8	1.2
China, P. Rep.	228.3	161.0	108.5	167.9	74.0	0.8
United Kingdom	108.7	68.3	61.3	56.1	65.2	0.7
Taiwan	64.4	33.8	55.2	52.1	54.0	0.6
Australia	21.2	18.8	27.4	39.5	47.6	0.5
Korea, South	21.2	23.5	34.5	47.7	39.1	0.4
Other Countries	660.7	609.3	667.1	775.3	575.4	6.2
Total Exports	8,068.5	8,039.1	8,678.8	9,576.1	9,281.1	100.0

Note: Export numbers to the United States exclude \$898.9 million for coins (HS 7118) in 2000. Electrical energy exports to the United States for October 2002 estimated at \$29.0 million.

Totals may not add due to rounding.

Source: Manitoba Bureau of Statistics

second-most important foreign market) increased 3.2%, while exports declined to other major markets – Mexico, Hong Kong, Belgium and the People's Republic of China. To a large degree, these reductions were prompted by lower demand for agricultural commodities and food products.

The Manitoba Bureau of Statistics reports that manufacturing industries' exports, which account for about two-thirds of Manitoba's total foreign exports, increased by 1.0%. Gains were posted by four of the five largest manufacturing industry categories. Exports in agriculture declined by 14.6%, principally reflecting lower exports of wheat, canola and pulse crop products. Electricity exports to the U.S. also declined due to low water levels.

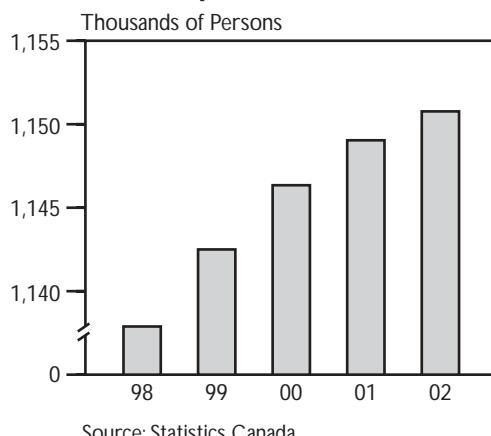
■ Population

Manitoba's total population was estimated at 1,150,800 as of July 1, 2002. This is Manitoba's "official" population for the year. The population growth from 2001 was 1,700 persons, or 0.15% (see Chart 24).

For calendar year 2002, Manitoba saw total net out-migration fall to 1,081 from 2,614 in 2001. Total net international in-migration, including non-permanent residents and temporary movement of Canadians abroad, increased slightly to 3,279 (see Chart 25). Net provincial out-migration fell to 4,360 from 5,712 in 2001, a decline of 23.7%.

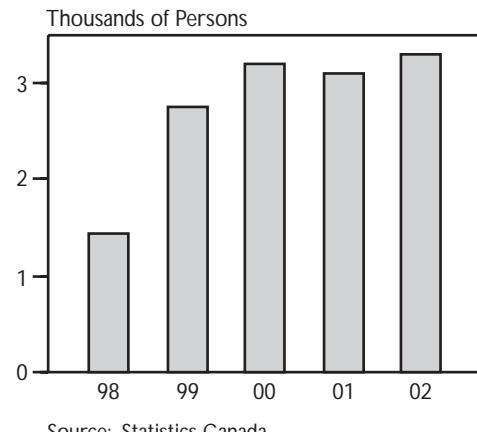
Statistics Canada has identified a problem with the quality of data on interprovincial migration for 2002. Interprovincial migration is a key component of population change for Manitoba. See explanation, "Note on Population Data Quality," page 26.

Chart 24
Manitoba Population



Source: Statistics Canada

Chart 25
Manitoba Net International Migration



Source: Statistics Canada

Overall, Manitoba's economy is expected to grow at rates near the national average in 2003 and 2004.

■ Manitoba Economic Outlook

Overall, Manitoba's economy is expected to grow at rates near the national average in 2003 and 2004. Most forecasters anticipate that the international economic outlook will strengthen appreciably in the second half of 2003 with strong growth sustained into 2004. Of course, considerable uncertainties – including those associated with the international geopolitical situation and international equities markets – exist in the short term.

The Manitoba Finance survey of economic forecasts shows that real GDP in Manitoba is projected to increase by 3.2% in both 2003 and 2004. This is in line with the survey's projected national increases of 3.3% in 2003 and 3.4% in 2004.

Manitoba's nominal GDP is projected to increase by 5.3% in 2003 and by 4.8% in 2004. This compares with projected national growth of 5.6% in 2003 and 5.2% in 2004.

Manitoba's employment is expected to grow 1.5% in 2003 and 1.4% in 2004, nearly the same pace as in 2002. Manitoba's unemployment rate is projected to be 5.0% in 2003 and 4.9% in 2004, down from 5.2% in 2002.

Manitoba's CPI inflation is projected to increase from 1.6% in 2002 to 2.2% in 2003. In 2004, the survey predicts inflation will ease back to 1.7%.

Manitoba Outlook at a Glance

	2001	2002	2003	2004
(Percentage Change Except as Noted)				
Gross Domestic Product				
Real	1.5	3.1	3.2	3.2
Nominal	3.7	3.5	5.3	4.8
Employment	0.6	1.6	1.5	1.4
Unemployment Rate (%)	5.0	5.2	5.0	4.9
CPI	2.6	1.6	2.2	1.7

Sources: 2001 and 2002 are from Statistics Canada and Manitoba Bureau of Statistics; 2003 and 2004 are average of Manitoba Finance Survey of Independent Economic Forecasts

HIGHER INCOMES

One of the principal benefits of a growing economy is growing incomes. Growth in per capita incomes promotes personal consumption and increased living standards.

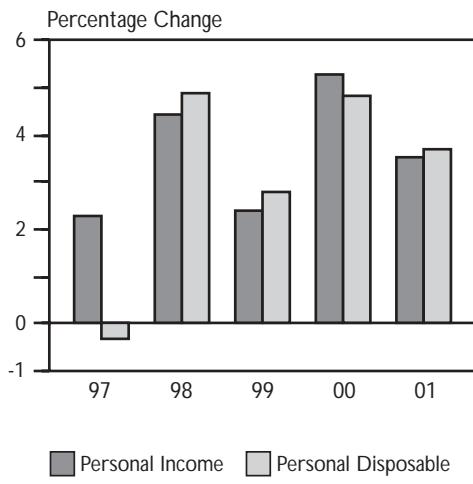
Economists gauge incomes through two principal measures. Personal income, as defined in economic terms, includes wages and salaries, investment income and transfers from government (for example, employment insurance payments and CPP income). Personal disposable income is personal income less personal income taxes and social security contributions. Broadly, personal disposable income is the income left to individuals after their personal taxes have been paid.

Manitoba has a strong record of per capita income growth. In 2001, per capita personal disposable income grew 3.7%, slightly ahead of the national average increase of 3.4%, and above the inflation rate of 2.6%. In each year during 1997–2001, Manitoba's per capita personal disposable income level was fourth in Canada behind Alberta, Ontario and British Columbia. Manitoba's per capita personal disposable income grew 17.2% between 1997 and 2001, in line with the national average increase of 17.5%.

Statistics Canada data for 1997–2001 shows that Manitoba's per capita personal income grew by 16.5%, second-best among western provinces and just behind the national increase of 17.6% (see Chart 26). In 2001, Manitoba's personal income per person increased 3.5%, higher than the national average increase of 3.0%.

Chart 26

Manitoba's Personal Income Per Capita and Personal Disposable Income Per Capita



Source: Statistics Canada

*In each year during
1997–2001, Manitoba's
per capita personal
disposable income level
was fourth in Canada
behind Alberta, Ontario
and British Columbia.*

Note on Population Data Quality

Statistics Canada normally bases its preliminary estimates of interprovincial migration on change of address information contained in Child Tax Benefit files maintained by the Canada Customs and Revenue Agency (CCRA). However, Statistics Canada has been unable to obtain this information from the CCRA for most of 2002. For the 12 months of 2002, only April, May and November are completely based on information from the CCRA.

Statistics Canada has filled in the missing months of data by using "adjusted" proxy estimates for the same months in 2001. Currently, no precise adjustment information has been released by Statistics Canada as to how it has produced the quarterly interprovincial migration estimates.

Another complication arising in respect of the data for 2002 relates to international emigration. Child Tax Benefit data is used to help estimate international out-migration. Since data were not available for most of 2002, adjusted numbers from previous periods were used.

THE MANITOBA ECONOMY: STRENGTH IN DIVERSITY

Manitoba has one of Canada's most diverse economies. Studies by Moody's Investors Service in 2000 and 2002 showed that Winnipeg has one of the most diverse economic structures among major metropolitan centres in Canada.

Diversity is one of Manitoba's major economic strengths. It provides stability over time, as periodic weakness in some industries tends to be balanced by strength in others. No one industry dominates the province's economy.

The growing diversity of Manitoba's economy has provided Manitoba businesses and workers with a more stable environment to grow and work. In fact, Statistics Canada data shows that Manitoba's economy posted the most stable growth among provinces over the past five years.

New developments in traditional industries have provided opportunities for Manitoba businesses to diversify into new markets, and bring new products to existing markets. This continual broadening of Manitoba's economic base will provide even greater stability and certainty for Manitobans into the future.

The growth in non-traditional exports is illustrated by the change in the composition of Manitoba's exports. While Manitoba's foreign commodity exports have increased dramatically over the past several years, the diversification of the economy can be best illustrated by the change in the shares of exports among major industries. In particular, manufacturing, which in 1996 accounted for about 57% of Manitoba's exports, has grown steadily to account for 66% of foreign exports in 2002. New products contributed significantly to this growth, as exports of commodities like furniture, prepared meats, potato products, industrial chemicals, plastic products, pharmaceuticals, and printing and publishing goods increased dramatically.

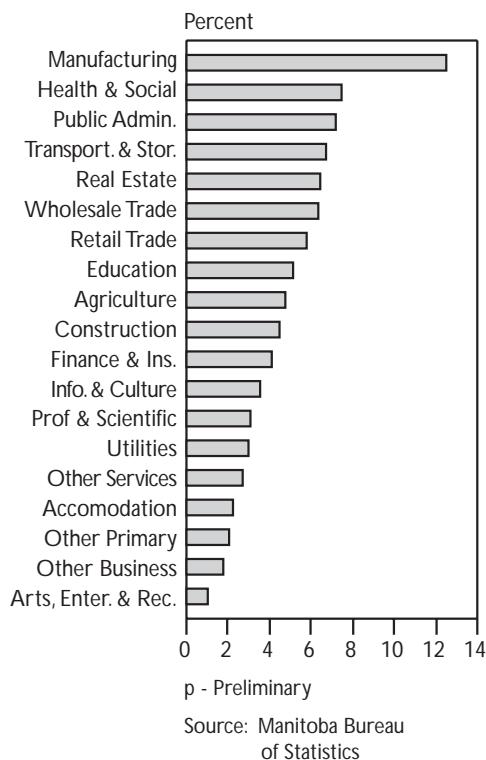
Composition of Manitoba Foreign Commodity Exports, 1996 & 2002

	1996	2002
	(Percent of Total)	
Manufacturing.....	57	66
Agriculture.....	28	19
Other Primary.....	9	9
Electricity	5	4
All Other	1	3

“Manitoba’s highly diversified economy provides further support to the credit rating as it limits exposure to cyclical events in any one industry or sector.”

**Moody’s Investors Service
January 2003**

Chart 27
Shares of Manitoba Gross Domestic Product, 2002p



Manufacturing is Manitoba's largest sector, accounting for about 13% of total GDP. It accounted for about two-thirds of Manitoba's foreign commodity exports last year. Manitoba is home to Canada's largest furniture plant and is a major location for the manufacture of aerospace equipment, chemicals, machinery, clothing, and processed foods. Home to Motor Coach Industries and New Flyer Industries, Manitoba is also North America's largest producer of intercity and urban buses.

Primary industries have historically played an important role in Manitoba's economic growth and development. Agriculture, mining and other primary industries contribute about seven percent of Manitoba's GDP directly. Manitoba's agriculture sector has diversified significantly over the past several years, and now produces a wide array of crop and livestock varieties. Substantial investments in diversification into higher value-added industries have occurred over the past several years. This sector also has strong linkages to Manitoba's \$3 billion food processing industries.

One factor that has provided Manitoba with economic stability is its relatively large service sector. This sector includes industries such as wholesale and retail trade, finance and insurance, transportation, health care, education and real estate. Service industries accounted for approximately 73% of Manitoba's total economy in 2001, higher than the Canadian level of 69%. The service sector also accounts for about 76% of Manitoba employment.

Manitoba's service sector tends to be less susceptible to fluctuations through the business cycle than most goods-producing industries. The province is home to many major service sector operations, including the head offices of two of Canada's major financial corporations – Great-West Life and Investors Group – the International Institute for Sustainable Development, the Canadian Wheat

Board, and CanWest Global Communications. Winnipeg is also a major centre for several other service industries, including other transportation and storage industries, business call centres and wholesale trade.

Manitoba is at the northern end of the mid-continent trade corridor that connects Canada to the central U.S. and Mexico. Winnipeg's location at the main lines of the two national railways and three railway lines to the U.S., coupled with major air and road transport capabilities, is reflected in a large cargo and freight transportation sector. Three of Canada's ten largest employers in the for-hire trucking industry are headquartered in Winnipeg. The Emerson-Pembina North Dakota border crossing is the second-busiest international border crossing in Western Canada.

Research and innovation continue to play a major role in promoting the diversification of Manitoba's industries. Total R&D expenditure in Manitoba equals 1.2% of provincial GDP, fourth-highest among the provinces. The development and diffusion of innovations have strengthened the province, and a number of major research establishments are located in the province.

Higher education institutions perform a significant portion of the research activities in Manitoba. Statistics Canada estimates that the R&D expenditure in Manitoba's higher education sector in 2000/01 totaled \$189.6 million, an increase of 45% from the 1998/99 level.

Several new investments will further expand Manitoba's capacity in its life sciences sector in 2003 and 2004 (see Capital Investments, Science, Technology and R&D, 2003, page 37).

Manufacturing Exports, Major Growth Categories, 1996-2002

	<u>Percent Change</u>
Printing & Publishing.....	317.2
Chemicals.....	246.2
Wood	176.9
Primary Metals.....	136.2
Plastics	124.2
Fabricated Metals	105.9
Food & Beverages	91.4

Manitoba Economic Statistics, 1998 to 2002

	1998	1999	2000	2001	2002
(Millions of Dollars)					
SECTORS					
Farm Cash Receipts	2,962	2,959	3,178	3,648	3,755
Crops	1,644	1,415	1,322	1,486	1,849
Livestock	1,225	1,329	1,569	1,779	1,687
Direct Payments	92	216	287	382	219
Manufacturing Shipments	10,373	10,656	11,344	11,466	11,538
Mineral Production	967	907	1,234	1,023	982
Electric Power Sales	1,130	1,179	1,295	1,458	1,361
Export Sales	321	363	454	596	472
Housing Starts (no. of units)	2,895	3,133	2,560	2,963	3,617
Retail Trade	8,773	9,026	9,396	9,937	10,622
FOREIGN EXPORTS					
Total Exports	8,069	8,039	8,679	9,576	9,281
U.S.	6,069	6,495	6,974	7,518	7,597
GROSS DOMESTIC PRODUCT					
Nominal	30,941	31,913	33,420	34,666	35,886
Real	31,011	31,585	32,341	32,838	33,865
BASE RATE WAGE SETTLEMENTS (%)					
Public	1.2	2.4	2.5	2.4	4.6
Private	1.6	2.9	3.3	2.5	1.3
Total	1.4	2.5	2.6	2.4	4.0
INVESTMENT					
Total	5,152	5,237	5,181	5,710	5,795
Private	4,083	3,847	3,870	4,359	4,363
Public	1,069	1,390	1,311	1,350	1,433
Non-residential	4,287	4,368	4,323	4,791	4,682
Housing	866	870	858	919	1,114
POPULATION					
July 1 (000's)	1,138	1143	1,146	1,149	1,151
LABOUR MARKET					
Labour Force (000's)	566.8	574.8	583.2	587.1	598.0
Employment (000's)	535.7	542.7	554.4	557.9	567.0
Participation Rate (%)	67.0	67.5	67.9	68.1	69.2
Unemployment Rate (%)	5.5	5.6	4.9	5.0	5.2
CONSUMER PRICE INDEX					
(Index, 1992=100)	113.0	115.2	118.1	121.2	123.1
BANKRUPTCIES					
Business	266	216	253	300	249
Farm	27	29	18	19	41
Personal	2,422	2,466	2,475	2,493	2,437

Sources: Statistics Canada and Manitoba Bureau of Statistics

1998	1999	2000	2001	2002	
(Annual Percentage Change)					
-3.7	-0.1	7.4	14.8	2.9	SECTORS
-4.7	-14.0	-6.5	12.4	24.4	Farm Cash Receipts
1.4	8.4	18.1	13.4	-5.2	Crops
-35.2	134.6	32.9	33.1	-42.7	Livestock
6.6	2.7	6.5	1.1	0.6	Direct Payments
-14.1	-6.2	36.0	-17.1	-4.0	Manufacturing Shipments
1.6	4.4	9.8	12.6	-6.6	Mineral Production
11.2	13.0	24.9	31.4	-20.8	Electric Power Sales
10.8	8.2	-18.3	15.7	22.1	Export Sales
2.1	2.9	4.1	5.7	6.9	Housing Starts (no. of units)
					Retail Trade
FOREIGN EXPORTS					
10.3	-0.4	8.0	10.3	-3.1	Total Exports
12.8	7.0	7.4	7.8	1.0	U.S.
GROSS DOMESTIC PRODUCT					
4.0	3.1	4.7	3.7	3.5	Nominal
4.2	1.9	2.4	1.5	3.1	Real
BASE RATE WAGE SETTLEMENTS (%)					
-	-	-	-	-	Public
-	-	-	-	-	Private
-	-	-	-	-	Total
INVESTMENT					
2.2	1.6	-1.1	10.2	1.5	Total
3.6	-5.8	0.6	12.6	0.1	Private
-2.7	30.0	-5.7	3.0	6.1	Public
1.3	1.9	-1.0	10.8	-2.3	Non-residential
7.1	0.5	-1.3	7.1	21.2	Housing
POPULATION					
0.1	0.4	0.3	0.2	0.1	July 1 (000's)
LABOUR MARKET					
0.9	1.4	1.5	0.7	1.9	Labour Force (000's)
1.9	1.3	2.2	0.6	1.6	Employment (000's)
-	-	-	-	-	Participation Rate (%)
-	-	-	-	-	Unemployment Rate (%)
CONSUMER PRICE INDEX					
1.3	1.9	2.5	2.6	1.6	(Index, 1992=100)
BANKRUPTCIES					
-8.9	-18.8	17.1	18.6	-17.0	Business
42.1	7.4	-37.9	5.6	115.8	Farm
-12.6	1.8	0.4	0.7	-2.2	Personal

Appendix 1:

RESEARCH AND INNOVATION

Innovation is the means by which new ideas and techniques are applied to improving products, processes and services in a way that increases the standard of living, boosts productivity, conserves resources or increases competitiveness. Innovation can lay the foundation for growth in investment, job creation and export opportunities.

An important part of the innovation process involves research and development (R&D). Research is an investment in knowledge, and a necessary step in the process of innovation. Countries that perform R&D – be it through the activities of government, business, not-for-profit organizations or through institutions of higher learning – also build a knowledge base among their citizens for a skilled and productive work force.

Research can also facilitate improvements to our quality of life. Advances in research promote progress in important areas such as medicine, personal security, the environment, education and agricultural production. All of these improvements directly enhance our well-being.

■ Manitoba's Research Environment

The current level of gross expenditure on research and development in Manitoba is estimated to be equal to about 1.2% of Manitoba GDP, fourth-highest among the ten provinces. Industry, government and universities all undertake significant R&D activity in Manitoba.

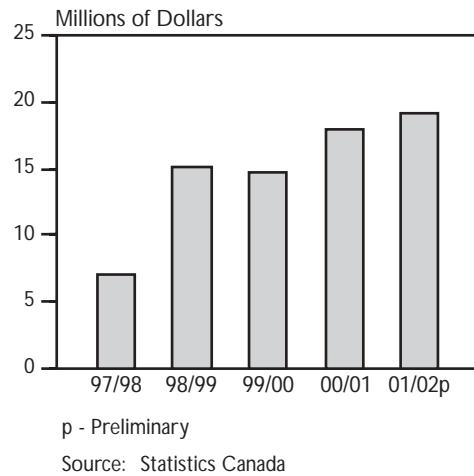
Statistics Canada estimates that total gross expenditure on R&D in Manitoba in 2000 was \$404 million, up from \$298 million in 1998.

Over 220 Manitoba businesses were involved in R&D programs across a variety of economic sectors. These firms spent \$125 million on in-house R&D in Manitoba in 2000, and employed 1,300 personnel in research activities.

Research and innovation in Manitoba spans a broad range of industries, including engineering, medicine, pharmaceuticals, agriculture and agri-food, aerospace products and other transportation equipment. The list of firms undertaking research in the province include Apotex, Cangene Corporation, Vansco Electronics, Novadaq Technologies Inc., Biovail Corporation, Advanta Seeds, Agricore United, Monsanto and Bristol Aerospace.

One of Manitoba's widely recognized research strengths is in the fast-growing biotechnology sector. The province is home to 37 biotechnology companies; one in ten of Canada's biotechnology

**Provincial Government
Expenditure on R&D,
1997/98 - 2001/02**



companies currently undertake research in Manitoba. Health, environmental and agricultural biotechnology are the primary research areas, with a specific focus on cardiac and vascular diseases, infectious diseases, cell biology and gene technology, nutraceuticals, disease resistance and quality enhancement in cereal and oilseed crops. The province is home to 20 research centres and groups that undertake biotechnology research.

Manitoba is also home to a number of major public research and development facilities. These include the University of Manitoba, the St. Boniface General Hospital Research Centre, the \$142 million Canadian Science Centre for Human and Animal Health, the National Research Council's Institute for Biodiagnostics, the Manitoba Industrial Technology Centre, TRLabs, the Food Development Centre, the National Centre for Agri-Food Research in Medicine, Agriculture and Agri-Food Canada's Cereal Research Centre, Canadian International Grains Institute and the Prairie Agricultural Machinery Institute.

While the province is widely recognized for its current research facilities and programs, a number of significant new projects will further add to the province's R&D networks.

- The 110,000 square foot St. Boniface General Hospital Research Centre is currently home to dozens of major world-class research programs, cardiac and vascular sciences, oncology, neurodegenerative disorders, and health research on ageing. Construction is currently under way on the \$25 million I.H. Asper Clinical Research Institute, adjacent to the St. Boniface General Hospital Research Centre. The new 100,000 square foot research facility will help bridge research and patient care, and will provide the clinical resources necessary for the improvement of cardiac and vascular medicines and treatments. When completed and operating at full complement, the combined Research Centre and Clinical Research Institute will boast a staff complement of 600, with gross annual revenue of approximately \$60 million.
- The Richardson Centre for Functional Foods and Nutraceuticals will bring together researchers from the agriculture, foods sciences, human nutrition, medicine and pharmacology disciplines, along with their industry partners to study and develop functional foods and nutraceuticals. Research will focus on agricultural products important to the prairie region, including oats, wheat, buckwheat, canola, flax, hemp and pulse crops. Construction on this \$25 million facility will begin at the University of Manitoba's SMARTpark in the autumn of 2003 with completion expected by the end of 2004.
- In a few months, construction will begin on the National Research Council's new \$10 million Industrial Partnership Facility, adjacent to the NRC's Institute for Biodiagnostics (IBD). The new 43,000 square foot facility will incubate start-up companies from the high-tech medical technology sector and spin-offs from the NRC, assisting them to become self-sustaining. Included in the facility will be the Institute's Business Development Office and the Prairie Centre for Business Development. Established in 1992, the IBD has grown to employ over 150 staff, specializing in magnetic resonance technology, spectroscopy, informatics and biosystems research.
- Winnipeg's reputation as a centre of excellence for medical research helped secure the new \$3 million Breast Cancer Research and Diagnostic Centre. Supported by the federal and Provincial governments in partnership with the CancerCare Manitoba Foundation, the Centre

will be affiliated with the Manitoba Institute of Cell Biology. The Institute currently has about 110 researchers actively involved in scientific research.

The federal government continues to have a major presence in science and technology funding in Canada. In Manitoba, federal funding for R&D was estimated at \$122 million for 2000/01, about 3.1% of the federal government's total commitment to R&D nationally. This share of national R&D investment is lower than Manitoba's share of national population, and the Government of Manitoba has encouraged the federal government to boost R&D funding in the province to ameliorate the funding deficiency.

The federal government supports science activities performed by federal departments and agencies, universities, businesses or other organizations. Federal departments and agencies conducting research in Manitoba include Agriculture Canada, Environment Canada, Fisheries and Oceans, Health Canada and the National Research Council.

■ Provincial Support for Research and Innovation

The Province supports research and innovation both through direct spending programs and through the Manitoba Research and Development Tax Credit.

Manitoba's direct expenditures on R&D include internal departmental spending, support to business enterprises, R&D support to universities and health care organizations, and through the activities of the Industrial Technology Centre.

In 2001/02, direct expenditure on R&D by the Provincial Government was \$19.3 million, up 7.2% from \$18.0 million in 2000/01, and significantly higher than the \$14.7 million R&D expenditure in 1999/2000.

Most of the Provincial Government's direct expenditure commitment to R&D is provided to universities. About 51% of total Provincial R&D support is for work performed by Manitoba's institutions of higher education.

A further 23% of Provincial R&D expenditure is provided to hospitals and health organizations, including the Manitoba Health Research Council. The balance of provincial R&D support, accounting for 26% of the total, is provided through the work of government departments, private businesses and other parties.

Manitoba's Research and Development Tax Credit encourages private sector R&D activity in Manitoba. The Tax Credit Program provides a 15% non-refundable credit for qualifying R&D expenditures (see "Manitoba Research and Development Tax Credit," page 36).

Manitoba partners with the federal government through the Manitoba Research and Innovation Fund (MRIF). The MRIF was established to assist in increasing the capabilities of Manitoba universities, colleges, hospitals and not-for-profit sector to conduct scientific research and product development. The Provincial Government and the federal government, through the Canadian Foundation for Innovation, provide matching contributions in support of qualifying research projects.

In 2002/03, dozens of projects were funded through the MRIF, including several research projects supported through the Regional Partnerships Program, a co-funding arrangement with the Canadian Institutes for Health Research. The table "Manitoba Research and Innovation Fund Projects, 2002/03" on page 38 provides a list of some of the research projects funded last year.

As well as providing health research support through the MRIF and the sub-component program, the Regional Partnerships Program, Manitoba has implemented the Health Research Initiative. The objectives of the Initiative are to assist Manitoba's health research centres to increase R&D activities in Manitoba and facilitate sustained economic growth and the creation of high-quality jobs. The program is an incentive-based initiative with the distribution of funds tied to the amount of research revenue each Manitoba health research centre attracts from private industry and from granting agencies outside the province. In 2002/03, the Health Research Initiative provided \$3 million to support operating costs for five health research centres in Manitoba.

The Manitoba Health Research Council (MHRC) promotes and assists basic, clinical and applied health sciences in Manitoba and advises the Ministers of Health and Energy, Science and Technology on health matters referred to MHRC. The MHRC operates a number of funding programs, including awards to post-doctoral and graduate students, Ph.D. dissertation awards, operating and establishment grants and bridge funding for researchers. In 2002/03, MHRC awarded \$1.9 million in research grants to health researchers including \$182,000 for the federal-provincial Research Partnerships Program. The Province also supports health research through its support for the Manitoba Centre for Health Policy (\$1.85 million annually).

The Government of Manitoba is also a partner with the federal government in the Networks of Centres of Excellence program. This program was established several years ago to support research at universities and hospitals in partnership with the private sector. Manitoba's objectives in developing the Manitoba Centres of Excellence Fund (MCEF) are to attract and maintain world-class R&D activity to Manitoba and to generate related spin-off benefits for local companies and non-profit institutions.

In 2002/03, 12 Manitoba Network of Centres of Excellence research programs received support through the MCEF. Grants of between \$10,000 and \$190,000 were provided to R&D programs such as the Canadian Genetic Diseases Network, the Canadian Institute for Telecommunications Research, Intelligent Sensing for Innovative Structures, Vaccines & Immunotherapeutics of Cancer & Chronic Viral Diseases (CANVAC), and Sustainable Forest Management.

Manitoba continues to support a number of major research initiatives in the province related to agriculture. The Agri-food Research and Development Initiative (ARDI) provides funding for research and development aimed at enhancing diversification, value-added opportunities and export capabilities in the province's large agri-food sector. Last year, \$1 million was devoted to this program.

The Province operates a special operating agency, the Food Development Centre, to undertake R&D and related services to bring new Manitoba food products to market. Located in Portage la Prairie, the Centre provides support to clients in areas such as product development, food

■ MANITOBA RESEARCH & DEVELOPMENT TAX CREDIT

In 1992, Manitoba introduced a 15% non-refundable Corporate Income Tax credit for scientific research and experimental development undertaken in Manitoba by a taxable corporation with a permanent establishment in Manitoba. The incentive is tied to the criteria used to determine eligibility for the federal investment tax credit on qualifying R&D expenses and supplements the federal credit.

The federal and provincial R&D credits are broadly targeted insofar as both incentives are activity based, and apply to all sectors and industries. Both current expenditures, which include remuneration of persons engaged in research and the cost of materials, and prescribed capital expenditures, which includes the cost of machinery and equipment, are eligible expenses for purposes of Manitoba R&D tax credit amounts.

From the inception of the Manitoba R&D tax credit through to the 2001 taxation year (latest year for which data is available), \$67.3 million in provincial tax credits have been paid to firms conducting R&D in Manitoba.

Further details in respect of the Research and Development Tax Credit programs are available at <http://www.ccra-adrc.gc.ca/taxcredit/sred/menu-e.html>.

Over the years, studies by various agencies have repeatedly confirmed that Canada's income tax treatment of research and development is among the most generous in the world, especially when coupled with Provincial incentives. The following table shows the after-tax cost associated with R&D current expenses for a large corporation and a small privately-owned corporation, based on 2002 income tax rates.

After-Tax Cost of \$100 R&D Expenditure, 2003

	Large Corporation	Small Private Corporation
Eligible R&D expenditure	\$100.00	\$100.00
(less) Manitoba tax credit	15.00	15.00
(less) Federal tax credit	<u>17.00</u>	<u>29.75</u>
Deductible Amount	68.00	55.25
 Tax Savings:		
Manitoba	10.88	2.76
Federal	<u>16.40</u>	<u>7.25</u>
 Net-after tax cost	40.72	45.24

processing and packaging and shelf life testing. The Centre is undergoing an \$11 million expansion, which should further support the diversification of the agri-food sector in Manitoba, and move more new products from the province into the international marketplace.

Portage la Prairie is also home to the Prairie Agricultural Machinery Institute (PAMI) Manitoba testing and development station. Established over 25 years ago, PAMI is jointly sponsored by the governments of Manitoba and Saskatchewan. PAMI tests machinery for a wide range of clients, including equipment manufacturers, farm producers, commodity groups and governments. Although the Provincial Government provides some financial support to the Institute, PAMI has been a largely self-supporting research organization through fee-for-service arrangements.

Another special operating agency of the Manitoba Government is the Industrial Technology Centre (ITC). ITC provides advanced technical research and testing for a variety of clients, including a calibration laboratory, noise and vibration analysis, mechanical testing and administrative support for product development and related activities. In December 2001, ITC opened the new \$1.5 million Virtual Reality Centre, which allows businesses to realistically simulate new products before they are built. Manufacturers can use virtual technology to design any product with computer images that show how two-dimensional models will actually look and feel in a three-dimensional world.

Manitoba is home to one of five TRLabs applied research laboratories. Sponsored by a private-public sectors partnership, and funded in part by the Department of Energy, Science and Technology, TRLabs specializes in information and communications technology research. Manitoba's research centre focusses on data networking technologies. Created in April 1995, it is now a major component of Manitoba's high-tech infrastructure, delivering benefits to small and medium-sized enterprises, high-tech students, the University of Manitoba and the information and communication technology sector at large. In February 2003, TRLabs relocated to a new 6,000 square foot facility at the University of Manitoba's SMARTpark. Over 60 staff are presently involved in research at the Winnipeg TRLabs facility.

As well as direct sponsorship of research and innovation programs in the province, the Province has supported several investment capital supply programs. Some have provided venture capital support

Capital Investments, Science, Technology and R&D, 2003

- Richardson Centre for Functional Foods and Nutraceuticals
- I. H. Asper Clinical Research Centre
- National Research Council's Institute for Biodiagnostics, Industrial Partnership Facility
- Breast Cancer Research and Diagnostic Centre
- Cangene Corporation Facility Expansion
- Biovail Corporation Facility Expansion
- Brett-Young Seeds R&D Facility
- Food Development Centre Expansion
- SMARTpark Multi-Tenant R&D Facility
- Centre for Agroecological Livestock Production Systems
- TRLabs - Network of the Future
- Centre for Applied Research and Sustainable Infrastructure
- Advanta Seeds Carman Research Facility Expansion

Manitoba Research and Innovation Fund Projects, 2002/03

	Funding (Thousands of Dollars)
Regional Partnership Program for Medical Research - Projects.....	213
Canada Research Chair – Applied Electromagnetics.....	153
Centre for Advanced Animal Metabolism Research.....	280
Molecular Signaling Networks Regulating Immune Response.....	207
Biodiversity and Environmental Science Laboratories.....	179
Ground-Based Remote Sensing for Atmosphere	160
Centre for Agroecological Livestock Production Systems	1,770
Laser Ablation Microprobe	188
Manitoba Breast Cancer Research and Diagnosis Centre	604
Network of the Future – Core Architecture and Enabling Technology	368
National Microelectronics and Photonics Testing Collaboratory	200
200 kV Field Emission Gun Cryo – Electron Microscope.....	599
CARSI – Sustainable Infrastructure, Red River College.....	275
600 MHz NMR Spectrometer for Solids and Liquids.....	418
All Other Projects.....	1,220
Total	6,834

Source: Department of Energy, Science and Technology

to new and innovative companies, including the Manitoba Science and Technology Fund and Renaissance Capital Fund. Two labour-sponsored venture capital corporations, the Crocus Investment Fund and Ensis Growth Fund Inc., are an active, ongoing source of investment capital for growing Manitoba companies.

In 2002, the governments of Manitoba and Saskatchewan, together with several private and public sector organizations, announced the creation of a new \$45 million venture capital fund focussing on new biotechnology and medical investments in Western Canada. Similar to some existing limited partnership funds, the Western Life Sciences Venture Fund will focus on bringing life sciences research and new knowledge to commercial development.

Manitoba Hydro commits approximately \$5 million per annum to a research and development program to assist in providing higher system reliability, lower electricity rates, increased safety of the system infrastructure and improved customer quality of service. Some of this research is undertaken in-house, while the company sponsors other research at universities and other external research facilities. At any one time, Manitoba Hydro may be involved in as many as 100 individual research projects.

Manitoba Hydro also operates the HVDC Research Centre. The Centre, established in 1981, performs innovative research and development in HVDC and power electronic technologies, instrumentation, and simulation. The Centre has become a world leader in the technology of electric power system simulation, applied power systems analysis and related technologies.

In September 2002, the Manitoba Government created a new department to link together Provincial research and technology programs and help stimulate knowledge-based sectors such as biotechnology and information technology. The Department of Energy, Science and Technology also focusses on energy-related issues such as climate change, energy alternatives and energy resource management.

■ University of Manitoba

Universities and other post-secondary institutions play a critical role in Canadian R&D activities. These institutions are providing the knowledge and the skilled labour force necessary for innovation, and serve as incubators for new ideas in basic and applied research.

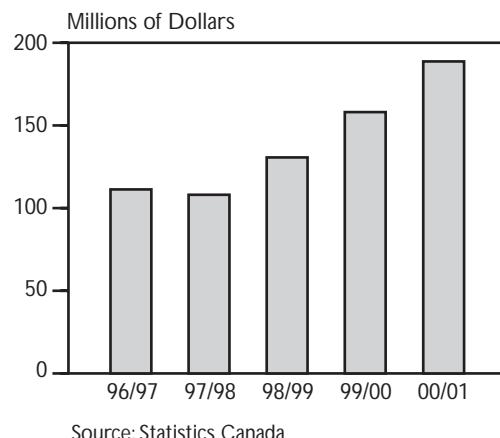
In Canada, higher education institutions account for about one-third of the R&D work performed. In Manitoba, higher education accounts for about half of the R&D work performed.

Statistics Canada estimates that R&D expenditures by Manitoba's higher education sector in 2000/01 totaled \$189.6 million, up from \$157.6 million in 1999/2000 and \$130.8 million in 1998/99. Natural sciences and engineering (including health sciences) accounted for approximately three-quarters of this total, while social sciences accounted for the remainder.

The University of Manitoba is one of Canada's major research universities. It provides instruction to more than 30,000 students annually, and has 6,000 academic and support staff. The University's reputation for outstanding research has earned it national and international recognition, and has helped it to earn over \$90 million annually in grants and contracts. Many of the research projects conducted at the University involve collaboration and partnership with other higher education institutions, private firms and governments. The University is home to more than 20 research centres and institutes ranging in scope from applied ethics to cardiovascular sciences. The University is home to the Freshwater Institute, Cadham Provincial Laboratories and the Agriculture Canada Research Station.

The University is an active participant in the national Networks of Centres of Excellence program. Currently, the University's researchers participate in 16 of the 22 networks created under this program, and the University is the headquarters of Intelligent Sensing for Innovative Structures

**R&D Expenditures in Manitoba
Higher Education
1996/97 -2000/01**



Source: Statistics Canada

Canada, the national network focussing on "smart" civil infrastructure. Other networks in which the University participates include: genetic diseases, arthritis, stroke research, telecommunications research, robotics and intelligent systems, bacterial diseases, protein engineering, water research, sustainable forest management, photonic innovations, microelectronic devices and systems, automobile design and engineering, vaccines and immunotherapeutics, mathematics of information technology, and health information.

The University of Manitoba has established almost 30 research chairs to ensure its leadership role in areas of established excellence. The research programs of these chairs focus on such important fields as aerospace materials, infectious diseases, population health, applied electromagnetics and cancer cell biology. The University's life sciences research activities are further strengthened through active partnerships with several major provincial medical research organizations, including CancerCare Manitoba, the Health Sciences Centre, St. Boniface General Hospital Research Centre, the Manitoba Institute of Child Health and the Canadian Science Centre for Human and Animal Health.

The last year has seen a number of important developments at SMARTpark, the research and innovation park located at the University of Manitoba. SMARTpark brings together industry and the University to promote R&D and the growth of knowledge-based industry. One of the key features of the park is its proximity and access to the University.

2002 saw the construction of the new 30,000 square foot multi-tenant research facility at SMARTpark. Two independent firms and a business incubator facility, "Incubat," have now made the SMARTpark facility home. Incubat is intended to promote the development and commercialization of research from the information technology and biotechnology sectors in Manitoba through mentoring, technology transfer and knowledge-based economic development.

Construction is also under way for an \$8.5 million, 65,000 square foot expansion to the Cangene Corporation pharmaceuticals facility at SMARTpark. In the spring of 2003, construction of a second multi-tenant facility will begin and, later in the year, construction is expected to start on the new Richardson Centre for Functional Foods and Nutraceuticals.